

Notice of Allowability

Application No.

10/684,361

Examiner

Roy M. Punnoose

Applicant(s)

DREVILLON ET AL.

Art Unit

2877

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed on 04/26/2006.
2. ☒ The allowed claim(s) is/are 27-47.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

Gregory J. Tolley, Jr.
Supervisory Patent Examiner

DETAILED ACTION

Response to Amendment

1. Applicant's Amendments received on April 26, 2006 is acknowledged and have been accepted by the Examiner and entered into the records.
2. Applicant has cancelled claims 1-26 and introduced new claims 27-47. Claims 27-47 are pending in the application.

Allowable Subject Matter

3. Claims 27-47 are allowable.
4. Claim 27 would be allowable because none of the prior art documents disclose a polarimetric system for analyzing a sample in which the orientation angles of the liquid crystal elements of the polarization state detectors are equal to the orientation angles of the liquid crystal elements of the polarization state generator, and the retardations of the liquid crystal elements of the polarization state detectors are equal to the retardations of the liquid crystal elements of the polarization state generator, (modulo 2π), in combination with the rest of the limitations of claim 27.
5. Claims 28-40 are allowable because they are dependent on independent claim 27 or an intermediate claim, and they include all the allowable limitations of the parent claim(s).
6. Claim 41 would be allowable because none of the prior art documents disclose a calibration process comprising calculating the product $(A_{IoW})^{-1}(AR(-\theta_p)MpR(\theta_p)W)$ for each reference sample in order to obtain an experimental matrix (Cp), in combination with the rest of the limitations of claim 41.

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7. Claims 42-43 are allowable because they are dependent on independent claim 41 or an intermediate claim, and they include all the allowable limitations of the parent claim(s).

8. Claim 44 would be allowable because none of the prior art documents disclose a calibration process in which the reference samples are chosen according to the following criteria, in combination with the rest of the limitations of claim 44.

- a. The 16x16 real symmetrical matrices $K_1(\theta_1)$ and $K_2(\theta_2)$ will only have one vanishing eigenvalue, if and only if the angles θ_1 and θ_2 used for their evaluation are equal to the azimuthal angles of the polarizers during the calibration measurements; and,
- b. The next eigenvalues are as large as possible, or, more precisely, the ratios $Z = \lambda_{15} / \lambda_1$ of the smallest nonvanishing eigenvalues (λ_{15}) over the largest (λ_1) eigenvalues of K_1 and K_2 are as large as possible.

9. Claims 45-47 are allowable because they are dependent on independent claim 27 or an intermediate claim, and they include all the allowable limitations of the parent claim(s).

10. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Contact/Status Information

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Roy M. Punnoose** whose telephone number is **571-272-2427**.

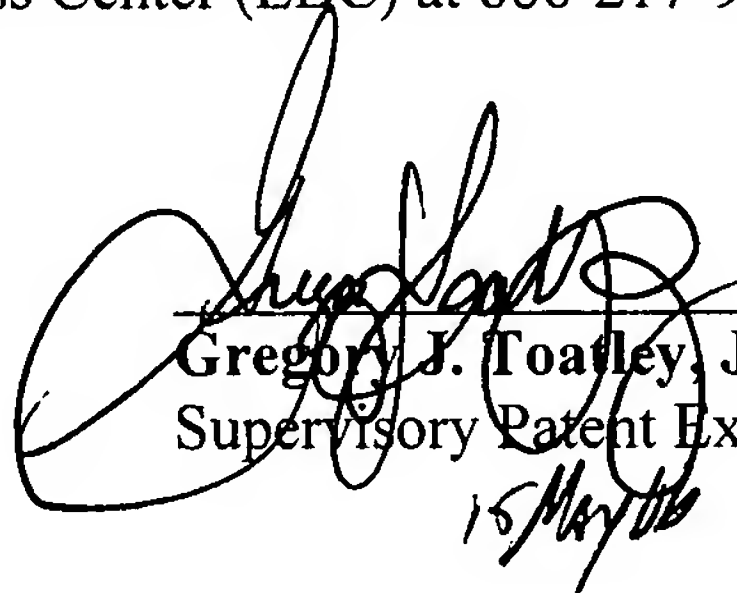
The examiner can normally be reached on 9:00 AM - 5:30 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Gregory J. Toatley, Jr.** can be reached on **571-272-2800 ext.77**. The fax phone number for the organization where this application or proceeding is assigned is **571-273-8300**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Roy M. Punnoose
Patent Examiner
Art Unit 2877
May 11, 2006


Gregory J. Toatley, Jr.
Supervisory Patent Examiner
15 May 06